CLAIMS

1. A measuring method for determining values of viscosity coefficients of a liquid crystal by fitting Ericksen-Leslie theoretical values to measured response characteristics, the measuring method comprising the steps of:

measuring ON response characteristics of a liquid crystal cell with homogeneous alignment;

determining a value of a rotational viscosity coefficient γ_1 from the measured ON response characteristics;

measuring OFF response characteristics of the liquid crystal cell; and

determining values of Miesovicz shear viscosity coefficients η_1 and η_2 from the measured OFF response characteristics.

2. A measuring device for determining values of viscosity coefficients of a liquid crystal by fitting Ericksen-Leslie theoretical values to measured response characteristics, the measuring device comprising:

a light source illuminating a liquid crystal cell;

a voltage supply capable of switching a voltage to be applied to the liquid crystal cell between high and low levels;

a transmittance measuring unit capable of collecting transmittance data for light originating from the light

source and passing through the liquid crystal cell, at intervals of 100 μs or less, from the switching point at the voltage supply; and

an arithmetic unit for determining a value of the rotational viscosity coefficient γ_1 by fitting the theoretical values calculated on varying γ_1, to data collected by the transmittance measuring unit when the voltage supply is switched to the high level; and for determining values of the Miesovicz shear viscosity coefficients η_1 and η_2 by fitting the theoretical values calculated on varying η_1 and η_2 while γ_1 is fixed at the value previously determined, to data collected by the transmittance measuring unit when the voltage supply is switched to the low level.